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(54) Title: BASE STATION EQUIPMENT, AND A METHOD FOR STEERING AN ANTENNA BEAM

(57) Abstract

The invention relates to a method for steering an antenna beam, and a base station equipment (100) comprising one or more antenna arrays (500, 700-704, 772-776), one or more channel units (504-508, 738-742) which channel unit comprises means (600-606, 706, 770) for phasing the signal to be transmitted and received by the antenna array (500, 700-704, 772-776) in such a way that the gain from the antenna array is the greatest in the desired direction, and means (616) for distinguishing the connection quality information from the information received from the mobile station (102). In order to improve the spectral efficiency and the connection quality, the channel unit (504-508, 738-742) comprises means (604, 732, 802) for searching for the incoming directions and delays of the received signal components, and means (604, 744, 802) for controlling the phasing means (606, 770) of the opposite transmission direction on the basis of said information and the connection quality information received from the mobile station.

